

PATENT ASSIGNMENT RECORDATION COVER SHEET

To: The Commissioner of Patents and Trademarks:
Please record the attached original document or copy thereof.

Submission Type: <input checked="" type="checkbox"/> New <input type="checkbox"/> Resubmission (Non-Recordation): Document ID# _____ <input type="checkbox"/> Correction of PTO Error: Reel # _____ Frame # _____ <input type="checkbox"/> Corrective Document: Reel # _____ Frame # _____		Conveyance Type: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Other: _____	
Name of conveying party(ies) David J. W. Aastuen and Charles L. Bruzzone		Execution Date (Month/Day/Year) 02/23/01 02/23/01	Name and address of receiving party(ies): 3M Innovative Properties Company P.O. Box 33427 St. Paul, Minnesota 55133-3427
Additional names of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		DUE DATE(S) _____ ATTORNEY DOCKETED <i>NFH</i> <i>Paul</i>	
Application number or patent number: <input type="checkbox"/> This document is being filed with a new patent application on _____ <input checked="" type="checkbox"/> This document is to be recorded against the following patent application or patent: 09/746,933			
Patent Cooperation Treaty (PCT): Enter PCT application number only if a U.S. Application Number has not been assigned: _____			
Name and address of party to whom correspondence concerning document should be mailed: Name: Néstor F. Ho Phone Number: 512-984-7443 Office of Intellectual Property Counsel 3M Innovative Properties Company P.O. Box 33427 St. Paul, Minnesota 55133-3427			
Number of Properties:		Enter the total number of properties involved	1
Fee Amount:		Fee Amount for Properties Listed (37 CFR 3.41)	<input checked="" type="checkbox"/> \$40.00
Method of Payment:		<input checked="" type="checkbox"/> Charge to Deposit Account No. 13-3723 Authorization to charge additional fees: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
DO NOT USE THIS SPACE			
Statement and signature To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.			
Néstor F. Ho Printed Name of Attorney	<i>Néstor Ho</i> Signature	February 27, 2001 Date	
Pages:	Total number of pages of the attached conveyance document including any attachments		

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents & Trademarks, Box Assignments, Washington, D.C. 20231

NFH
Paul

ASSIGNMENT

Whereas We, the below named inventors, with residences and citizenships as indicated below; have made an invention in

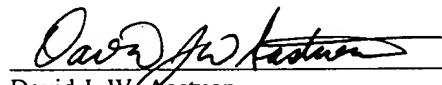
REFLECTIVE LCD PROJECTION SYSTEM USING WIDE-ANGLE CARTESIAN POLARIZING BEAM SPLITTER AND COLOR SEPARATION AND RECOMBINATION PRISMS

and have executed an application for Letters Patent of the United States of America based thereon; which application is identified in the United States Patent and Trademark Office as U.S. Application Serial No. 09/312,917, filed May 15, 1999 and provisional patent application, Serial No. 60/178,973, filed January 26, 2000;

Now, therefore, for good and valuable consideration, receipt of which is acknowledged, we have individually and jointly agreed to assign and transfer and do hereby assign and transfer unto the 3M INNOVATIVE PROPERTIES COMPANY, a wholly owned subsidiary of MINNESOTA MINING AND MANUFACTURING COMPANY, and a corporation of Delaware, having its principal office at Saint Paul, Minnesota, its successors and assigns, the entire right, title, and interest in and to the said invention and application, and in and to any division or continuation (in whole or in part) of said application, and in and to any and all improvements in the said invention made by us or any of us or made jointly with others (provided any such improvement is made during, or within one year after the termination of, the employment by Minnesota Mining and Manufacturing Company and any of its existing or future subsidiaries of whichever of us, solely or jointly with one or more others, has made the same), and in and to any and all Letters Patent, reexaminations, reissues, or extensions thereof, of the United States of America and countries foreign thereto (including the right to apply for Letters Patent, Utility Models, or Inventors' Certificates in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), which have been or may be granted thereon or on any divisional, continuation (in whole or in part), renewal, reexamination, reissue, or other or further application based in whole or in part upon the said invention or improvements thereon, to be held and enjoyed as fully and exclusively as they would have been by us or any of us had this assignment and transfer not been made,

We do further agree for ourselves and for our heirs, executors, and administrators, to execute and deliver without further consideration any further applications, assignments, and documents, and to perform such other acts as we lawfully may, that may be deemed necessary by the said Company, its successors, assigns, and nominees, fully to secure its right, title, and interest as aforesaid and to obtain or maintain Letters Patent, Utility Models, or Inventors' Certificates in any and all countries;

And we do hereby authorize and request the Commissioner of Patents to issue any and all Letters Patent which may be granted upon any of the said applications, to the said 3M Innovative Properties Company, as the assignee of the entire right, title, and interest therein.



David J. W. Aastuen

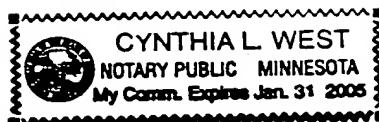
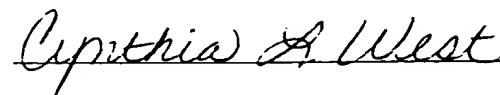
Residence: Farmington, Dakota County, Minnesota 55024

Citizenship: United States of America

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

On this 23 day of February, 2001, before me personally appeared the above-named David J. W. Aastuen, personally known by me, and known by me to be the person described in and who executed the foregoing instrument, and who acknowledged that said person executed the same as said person's free act and deed, on the day and year aforesaid.

(Seal)

Notary Public

Charles L. Bruzzone

Charles L. Bruzzone

Residence: Woodbury, Washington County, Minnesota 55125

Citizenship: United States of America

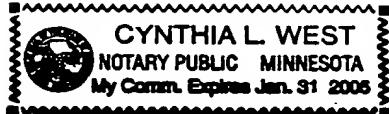
STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

On this 23 day of February, 2001, before me personally appeared the above-named Charles L. Bruzzone, personally known by me, and known by me to be the person described in and who executed the foregoing instrument, and who acknowledged that said person executed the same as said person's free act and deed, on the day and year aforesaid.

(Seal)

Cynthia L. West

Notary Public



Application Of: David J. W. Aastuen and Charles L. Bruzzone _____

Docket No.: 49837USA4K.051 Serial No.: 09/746,933 _____

Title: REFLECTIVE LCD PROJECTION SYSTEM USING
WIDE-ANGLE CARTESIAN POLARIZING BEAM
SPLITTER AND COLOR SEPARATION AND
RECOMBINATION PRISMS _____

Pages of Specification (including Claims and Abstract): _____

No. of Claims: _____ Sheets of Drawings: 1 _____

Declaration Assign. Certif. of Mailing _____

Amount charged to Deposit Account: \$40.00 _____

Attorney (initials): NFH/s- Date: February 27, 2001 _____

Express Mail No.: n/a _____

Enclosures: Communication, Declaration of Inventors, Formal
Drawing letter to Draftsperson with Fig. 3., Preliminary
Amendment, Assignment Recordation Sheet, Assignment, and
a Return Post Card _____

Abstract _____

Application Of: David J. W. Aastuen and Charles L. Bruzzone _____
Docket No.: 49837USA4K.051 Serial No.: 09/746,933 _____
Title: REFLECTIVE LCD PROJECTION SYSTEM USING
WIDE-ANGLE CARTESIAN POLARIZING BEAM SPLITTER
AND COLOR SEPARATION AND RECOMBINATION
PRISMS _____

Pages of Specification (including Claims and Abstract): _____

No. of Claims: _____ Sheets of Drawings: _____
 Declaration Assign. Certif. of Mailing _____

Amount charged to Deposit Account: \$0.00 _____

Attorney (initials): NFH/s Date: April 24, 2001 _____

Express Mail No.: n/a _____

Enclosures: Response to Notice of Omitted Item(s), Copy of
Notice #3760, Copy of Communication dtd 2/27/01, and a _____

Return Post Card _____

DECLARATION, POWER OF ATTORNEY, AND PETITION

O P E JC183
APR 21 2001
PATENT & TRADEMARK OFFICE

I, a below named inventor, depose and say that: (1) my residence, citizenship, and mailing address are indicated below; (2) I have reviewed and understand the contents of my patent application, including the claims, as amended by any amendment specifically referred to herein, which is identified as U.S. Patent Application Serial No. 09/746,933, filed December 22, 2000; (3) I believe that the other below named inventors and I are the original, first, and joint inventors or discoverers of the invention or discovery in

REFLECTIVE LCD PROJECTION SYSTEM USING WIDE-ANGLE CARTESIAN POLARIZING BEAM SPLITTER AND COLOR SEPARATION AND RECOMBINATION PRISMS

described and claimed therein and for which a patent is sought; and (4) this application in part discloses and claims subject matter disclosed in my earlier filed patent application, Serial No. 09/312,917, Filed May 15, 1999, and claims priority from a commonly assigned provisional patent application, Serial No. 60/178,973, filed January 26, 2000, and claims priority to those applications; (5) I hereby acknowledge my duty to disclose to the Patent and Trademark Office all information known to me to be material to the patentability as defined in Title 37, Code of Federal Regulations, §1.56*; and (6) I hereby acknowledge my duty to disclose to the Patent and Trademark Office material information as defined in Title 37, Code of Federal Regulations, §1.56* which occurred between the filing date of said earlier application and the filing date of this application.

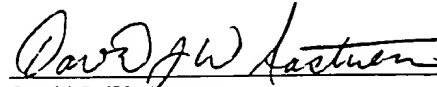
No application for patent or inventor's certificate on said common or said non-common subject matter has been filed by us or our representatives or assigned in any country foreign to the United States of America, except as follows:

I hereby appoint Gregory D. Allen (Reg. No. 35,048), Alan Ball (Reg. No. 42,286), Scott A. Bardell (Reg. No. 39,594), Carolyn A. Bates (Reg. No. 27,853), Dale A. Bjorkman (Reg. No. 33,084), Colene E. H. Blank (Reg. No. 41,056), Jennie G. Boeder (Reg. No. 28,952), William J. Bond (Reg. No. 32,400), Stephen W. Buckingham (Reg. No. 30,035), John A. Burtis (Reg. No. 39,924), Melissa E. Buss (Reg. No. P-47-465), Paul W. Busse (Reg. No. 32-403), Gerald F. Chernivec (Reg. No. 26,537), James D. Christoff (Reg. No. 31,492), Philip Y. Dahl (Reg. No. 36,115), Janice L. Dowdall (Reg. No. 31,201), Lisa M. Fagan (Reg. No. 40,601), Carolyn A. Fischer (Reg. No. 39,091), Yen T. Florcak (Reg. No. 45,163), Darla P. Fonseca (Reg. No. 31,783), Melanie G. Gover (Reg. No. 41,793), Christopher D. Gram, (Reg. No. 43,643), Gary L. Griswold (Reg. No. 25,396), Doreen S. L. Gwin (Reg. No. 35,580), Michael A. Hakamaki (Reg. No. 40,011), Karl G. Hanson (Reg. No. 32,900), Dean M. Harts (Reg. No. P-47634), Néstor F. Ho (Reg. No. 39,460), Rudolph P. Hofmann, Jr. (Reg. No. 38,187), Jeffrey J. Hohenshell (Reg. No. 34,109), Robert W. Hoke (Reg. No. 29,226), MarySusan Howard (Reg. No. 38,729), Stephen C. Jensen (Reg. No. 35,207), Robert H. Jordan (Reg. No. 31,973), Harold C. Knecht III (Reg. No. 35,576), Kent S. Kokko (Reg. No. 33,931), Douglas B. Little (Reg. No. 28,439), Eloise J. Maki (Reg. No. 33,418), Lisa M. McGeehan (Reg. No. 41,185), Matthew B. McNutt (Reg. No. 39,766), Michelle M. Michel (Reg. No. 33,968), William D. Miller (Reg. No. 37,988), Peter L. Olson (Reg. No. 35,308), Daniel R. Pastirik (Reg. No. 33,025), David B. Patchett (Reg. No. 39,326), Robert J. Pechman (Reg. No. 45,002), Carolyn V. Peters (Reg. No. 33,271), Scott R. Pribnow (Reg. No. 43,869), Ted K. Ringsred (Reg. No. 35,658), Steven E. Skolnick (Reg. No. 33,789), Robert W. Sprague (Reg. No. 30,497), Brian E. Szymanski (Reg. No. 39,523), James J. Trussell (Reg. No. 37,251), Lucy C. Weiss (Reg. No. 32,834), and Kimberly S. Zillig (Reg. No. 46,346) my attorneys and/or agents with full powers (including the powers of appointment, substitution, and revocation) to prosecute this application and any division, continuation, continuation-in-part, reexamination, or reissue thereof, and to transact all business in the Patent and Trademark Office connected therewith; the mailing address and the telephone number of the above-mentioned attorneys and/or agents are

Attention: Néstor F. Ho
Office of Intellectual Property Counsel
3M Innovative Properties Company
P.O. Box 33427
St. Paul, Minnesota 55133-3427
Telephone No. 512-984-7443

The undersigned petitioner declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Wherefore, I pray for grant of Letters Patent for the invention or discovery described and claimed in the aforesaid specification and we hereby subscribe our names to the foregoing specification and claims, declaration, power of attorney, and this petition, on the day set forth below.

 23 Feb. 2001

David J. W. Kastuen Date
Residence: Farmington, Dakota County, Minnesota
55024
Citizenship: United States of America
Post Office: P.O. Box 33427
Address: St. Paul, Minnesota 55133-3427

 23 Feb 2001

Charles L. Bruzzone Date
Residence: Woodbury, Washington County, Minnesota
55125
Citizenship: United States of America
Post Office: P.O. Box 33427
Address: St. Paul, Minnesota 55133-3427

§1.56 Duty to disclose information material to patentability.

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.